

What is claimed is:

1. A tissue regeneration substrate comprising a film with a honeycomb structure, composed primarily of a polymer compound and a phospholipid.

2. A tissue regeneration substrate according to claim 1, characterized in that said polymer compound is a biodegradable polymer.

3. A tissue regeneration substrate according to claim 2, wherein said phospholipid is at least one type selected from the group consisting of phosphatidylethanolamine, phosphatidylcholine, phosphatidylserine, phosphatidylglycerol and their derivatives.

4. A tissue regeneration substrate according to claim 3, wherein said phospholipid is phosphatidylethanolamine.

5. A tissue regeneration substrate according to claim 4, wherein said phospholipid is L- α -phosphatidylethanolamine-dioleoyl.

6. A tissue regeneration substrate according to claim 1, characterized in that the compositional ratio of the polymer compound and the phospholipid is 10:1 to 500:1 by weight.

7. A tissue regeneration substrate according to claim 1, characterized in that the average inner diameter of cavities of said honeycomb structure is from 0.1 to 20 μm .

8. A tissue regeneration substrate according to claim 1, characterized in that the tissue is cartilage tissue.

9. A tissue regeneration complex comprising a tissue regeneration substrate according to claim 1 and cells held in said tissue regeneration substrate.

10. A tissue regeneration complex according to claim 9, characterized in that the tissue is cartilage tissue.

11. A method for production of a tissue regeneration complex comprising cells held on a tissue regeneration substrate, by culturing cells on a tissue regeneration

substrate according to claim 1.